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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,571	02/18/2004	Ronald W. Moore	4956P014C	4742

7590 08/09/2004

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EXAMINER

JOHNS, ANDREW W

ART UNIT PAPER NUMBER

2621

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/782,571	Applicant(s) MOORE ET AL.	
	Examiner Andrew W. Johns	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040218</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

5 A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10
15 2. Claims 1-9 and 12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Knox (US 6,331,860 B1).

20 Knox teaches a method including obtaining a data set of a first point cloud (28 in Figure 3, for example) and a data set of a second point cloud (30 in Figure 3, for example); identifying a portion of geometry defined by each respective data set which describes a substantially similar geometric shape (column 4, lines 18-46); computing a transformation such that the portion of geometry in each data set align to substantially minimize alignment error (column 5, lines 18-65); and applying the transformation to the first point cloud to register it relative to the second point cloud (column 5, line 66 through column 6, line 4), as stipulated by claim 1. Knox also teaches a computer readable storage medium including program instructions that direct a computer to perform this method (column 3, lines 41-45), as further required by claim 12. In
25 addition, Knox further teaches generating values for a relative rotation of a portion of the identified geometry within the first and second point clouds (column 5, lines 40-49), identifying a relative scale factor between a portion of the identified geometry within the first and second point clouds (i.e., magnification factor; column 5, lines 30-39), and generating values for a

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relative translation of a portion of the identified geometry within the first and second point clouds (column 5, lines 51-60), as variously required by claims 2-5. The calculations of relative rotation, scale and translation are combined to compute the transformation (column 5, line 66 through column 6, line 4), as further stipulated by claim 8, the computing of the transformation further includes calculating a centroid of a spatial distribution of the identified portion of geometry (column 4, lines 50-51), as set forth in claim 7, as well as the calculation of the geometric mean of the spatial distribution of the identified portion (note equations 4, 5, and 6 in column 5, each of which calculates means for each of the geometric measurements), as defined by claim 6. Finally, the point clouds represent portions of a single physical object (i.e., a document; see column 3, lines 50-54), as additionally defined in claim 9. Therefore, Knox meets each of these limitations of the claims and anticipates the claimed invention.

Double Patenting

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. § 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. § 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. § 101.

4. Claim 10 is rejected under 35 U.S.C. § 101 as claiming the same invention as that of claim 11 of prior U.S. Patent No. 6,701,006 to Moore et al. This is a double patenting rejection.

Claim 11 of the Moore et al. '006 patent substantially identically sets forth each and every limitation of claim 10 of the instant application and of claim 1 from which claim 10

depends. Therefore, claim 11 of the Moore et al. '006 patent is directed towards the same subject matter encompassed by claim 10 of the instant application.

5 5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

10 A timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. § 1.130(b).

15 Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 C.F.R. § 3.73(b).

20 6. Claims 1-9 and 11-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-10 and 25-26 of U.S. Patent No. 6,701,006 to Moore et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because each of the limitations of the instant invention are defined by the claims of the '006 patent to Moore et al. In particular, claim 1 of the '006 patent includes each of the limitations of claim 1 of the instant application. While the patent claim
25 includes additional limitations not specifically recited by the claim of the instant application, the use of the transitional term "comprising" in the instant claim fails to preclude the possibility of additional features or elements. Therefore, the invention defined by claim 1 of the instant application is not patentably distinct from the invention defined in claim 1 of the '006 patent to Moore et al. Similarly, claim 26 of the '006 patent includes each of the limitations of claim 12
30 of the instant application, so that claim 12 also fails to define a patentably distinct invention. Furthermore, dependent claims 2-9 of the instant application are each identical to various of

claims 3-10 of the Moore et al. patent, and are similarly not patentably distinct. Finally, claim 25 of the Moore et al. patent includes each of the limitations of claim 11 of the instant application, but sets them forth in a different order. Because each of the limitations is included, and furthermore, because the effect of the method defined in both of these claims is the same and because the precise order of the various method steps does not appear to be necessary for the proper operation of the invention, the claim 11 is also not patentably distinct from the invention defined in claim 25 of the Moore et al. patent.

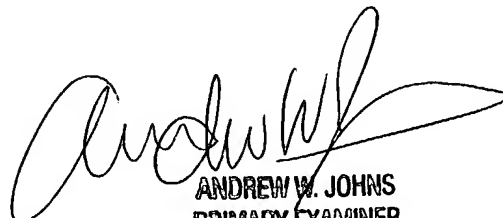
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Johns whose telephone number is (703) 305-4788. The examiner is normally available Monday through Friday, at least during the hours of 9:00 am to 3:00 pm Eastern Time. The examiner may also be contacted by e-mail using the address: andrew.johns@uspto.gov. (Applicant is reminded of the Office policy regarding e-mail communications. See M.P.E.P. § 502.03)

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached on (703) 305-4706. The fax phone number for this art unit is (703) 872-9306. In order to ensure prompt delivery to the examiner, all unofficial communications should be clearly labeled as "Draft" or "Unofficial."

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center Receptionist whose telephone number is (703) 305-4700.

A. Johns
6 August 2004



ANDREW W. JOHNS
PRIMARY EXAMINER